BLM

U.S. Department of the Interior
Bureau of Land Management

Environmental Assessment

Cottonwood Springs Hazardous Fuel Reduction Project
DOI-BLM-UT-G000–0001–EA

July 2015

PREPARING OFFICE

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Environmental Assessment
Cottonwood Springs Hazardous Fuel Reduction Project
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Prepared by
U.S. Department of the Interior
Bureau of Land Management
BLM, Green River District

July 2015

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Finding of No Significant Impact

Environmental Assessment NEPA DOI-BLM-UT-G000–0001–EA

Based on the analysis of potential environmental impacts (per Environmental Assessment, DOI-BLM-G000-2015-0001-EA), I have determined that the proposed action with the mitigation measures described below will not have any significant impacts on the environment and an environmental impact statement is not required.

Mitigation Measures:

1. All cultural archeological "eligible" sites will be hand-slashed instead of machine-masticated treatment. Slashing will be used to clear the vegetation on all of the sites so their locations will not be evident.

2. Treatment activities will avoid November 15 through July 31 to avoid impacts on greater sage grouse nesting, early brood-rearing seasons, and big game wintering seasons.

3. Trees located within the 68 acres of identified suitable habitat for Hamilton's milkvetch and Goodrich's penstemon will be hand-slashed instead of machine-masticated.

Signatures:

Recommended by:

s/ Kelly Buckner	7/30/2015
GRD, Environmental Planning Coordinator	[Date]

Approved by:

s/ Troy Suwyn	7/31/2015
GRD, Fire Management Officer	[Date]

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Decision Record

Compliance

The proposed action is in conformance with the existing Vernal RMP ROD(2008) and is consistent with the Uintah County General Plan. The proposed action alternative will not result in any undue degradation to threatened or endangered species, cultural resources, or matters pertaining to Native American religious freedoms or their customs. The proposed action is in compliance with the Endangered Species Act, National Historic Preservation Act, and the Clean Water Act.

Selected Action

The Cottonwood Springs Hazardous Fuels Reduction Project will entail a mastication treatment using mechanized equipment to mulch pinyon and juniper trees.

Compliance with NEPA:

The *Cottonwood Springs Hazardous Fuel Reduction Project EA* treatments are needed to restore the sagebrush vegetation type as set out in DOI-BLM-G000-2015-0001-EA

Public Involvement:

The project was posted to the ePlanning website on February 25, 2015, as of July 1, 2015 no comments were received.

Rationale:

My decision to authorize implementation of the proposed action alternative will not result in any undue or unnecessary environmental degradation to wilderness characteristics, threatened or endangered species, cultural resources, or matters pertaining to Native American religious freedoms or their customs. Realization of the proposed action is in conformance with the existing Vernal RMP ROD (2008) and is consistent with the Uintah County General Plan. The No Action Alternative was not selected because that alternative would not meet the stated purpose and need of reducing the hazardous fuel loads.

Implementation of the proposed action will result in the improvement towards a vigorous and healthy mountain big sagebrush vegetative type. The treatment will result in the following positive result

- Maintain areas that provide for important ecological functions and habitat for keystone species.
- Maintain important sagebrush habitat for a variety of wildlife species in the project area.
- Reduce the risk of large fire events.
- Reduce the buildup of hazardous fuels by removing pinyon pine and Utah juniper encroachment into sagebrush communities.

- Reduce fire behavior intensity characteristics in the area for more favorable suppression activities in the event of a wildland fire.

Appeal or Protest Opportunities:

As per 43 CFR 5003.1. (b), this decision is effective immediately.

The decision or approval may be appealed to the Interior Board Of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR 4.21. Within 30 days of receipt of the decision, an appeal must be filed to: Interior Board of Land Appeals, Office of Hearings and Appeals, U.S. Department of the Interior, 801 North Quincy St., Suite 300, Arlington, Virginia, 22203. A copy of the notice of appeal must also be filed in the Vernal Field Office at 170 South 500 East; Vernal, Utah, 84078, as well as with: Office of the Solicitor, 440 West 200 South Suite 500, Salt Lake City, Utah, 84101-1345. Public notification of this decision will be considered to have occurred on July 20, 2015. The appellant has the burden of showing that the decision appealed from is in error.

If you wish to file a petition for stay pursuant to 43 CFR 3150.2(b), the petition for stay should accompany your notice of appeal and shall show sufficient justification based on the following standards:

- The relative harm to the parties if the stay is granted or denied,
- The likelihood of the appellants success on merits,
- The likelihood of irreparable harm to the appellant or resources if the stay is not granted, and
- Whether the public interest favors the granting of the stay

Authorizing Official:

s/ Troy Suwyn
AFM for Division of Fire

7/31/2015
Date

Contact Person

For additional information concerning this Finding, contact.

Kelly Buckner
BLM, Green River District
170 South 500 East
Vernal, UT 84078
(435) 781–4445

Chapter 1. Introduction

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1.1. Identifying Information:

The Environmental Assessment (EA) has been prepared to analyze the Cottonwood Springs Hazardous Fuel Reduction Project. The EA is an analysis of potential impacts that could result with the implementation of a proposed action or no action alternative. The EA assists the BLM in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any "significant" impacts could result from the analyzed actions. "Significance" is defined by NEPA and is found in regulation 40 CFR 1508.27. An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a statement of "Finding of No Significant Impact" (FONSI). A Decision Record (DR), which includes a FONSI statement, is a document that briefly presents the reasons why implementation of the selected alternative will not result in "significant" environmental impacts (effects) beyond those already addressed in the Vernal Resource Management Plan (2008). This document provides the environmental assessment for the Cottonwood Springs Hazardous Fuel Reduction Project.

1.1.1. Title, EA number, and type of project:

Cottonwood Springs Hazardous Fuels Project Project: DOI-BLM-UT-G000-2015–0001–EA,

1.1.2. Location of Proposed Action:

The Cottonwood Springs Hazardous Fuels Project is located on the southern aspect of Little Mountain which is located four miles west of Maeser, UT. The project borders Ute Indian Tribe lands on the west and Utah State lands on the east.

The project is located in the following sections: T4S, R20E, Sec: 4, 5, 7-9, 16-18, 20, 21, 27, 28, 34 and T3S, R20E, Sec 33 and T4S, R19E, Sec: 12-14, 23-25.

1.1.3. Name and Location of Preparing Office:

U.S. Department of the Interior

Bureau of Land Management

Vernal Field Office

170 South 500 East

Vernal, UT 84078

Phone: 435-781-4400

1.2. Purpose and Need for Action:

The proposed action is needed primarily to maintain important sagebrush habitat for a variety of wildlife species in the project area. An additional need is to reduce the risk of wildfires near the community of Maeser, Utah and other adjacent landowners to the project area.

The purpose for the Cottonwood Springs Hazardous Fuel Reduction Project include:

- Maintain areas that provide for important ecological functions and habitat for keystone species.
- Maintain important sagebrush habitat for a variety of wildlife species in the project area.
- Reduce the risk of large fire events.
- Reduce the buildup of hazardous fuels by removing pinyon pine and Utah juniper encroachment into sagebrush communities.
- Reduce fire behavior intensity characteristics in the area for more favorable suppression activities in the event of a wildland fire.

1.3. Relationships to Statues, Regulations and Other Plans

1.3.1. Uintah County General Plan

The Uintah County General Plan of 2010 as amended states: with respect to “public land management”, the County continues to support “multiple use” management practices, responsible public land resource use and development.

1.3.2. Fire Management Plan

The project is in conformance with the Vernal Fire Management Plan of 2009 as referenced in Section 3.3.1.1 Fire Management.

1.3.3. Federal Statues and Regulations

- Protection Act of September 20, 1922 (42 Stat. 857; U.S.C. 594).
- Taylor Grazing Act of June 28, 1934 (48 Stat. 1269; U.S.C. 315)
- Reciprocal Fire Protection Act of May 27, 1955 (69 Stat. 66; 42 U.S.C. 1856, 1856a).
- The Federal Land Management and Policy Act of 1976 (FLPMA) (Public Law 94-579; 43 U.S.C. 1701)
- 2001 Annual Appropriations Acts for the Department of the Interior.
- United States Department of the Interior Manual (910 DM 1.3).
- 2001 Updated Federal Wildland Fire Management Policy (1995 Federal Wildland Fire Management Policy Update)

- 1998 Departmental Manual 620 Chapter 1, Wildland Fire Management General Policy and Procedures.
- 2000 DOI Secretary report to the President, "Managing the Impacts of Wildfires on Communities and the Environment."
- October 2000, National Cohesive Strategy goal is to coordinate an aggressive, collaborative approach to reduce the threat of wildland fire to communities and to restore and maintain land health.
- August 2001, "Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment -10 Year Comprehensive Strategy" provides a foundation for wildland agencies to work closely with all levels of government, tribes, conservation, and commodity groups and community-based restoration groups to reduce wildland fire risk to communities and the environment.
- July 2014, WO IM-2014–114, "Sage-Grouse Habitat and Wildland Fire Management".

1.4. Scoping, Public Involvement and Issues:

1.4.1. Internal Scoping

The proposed action was reviewed by an interdisciplinary team of BLM resource specialists. For a list of all resources considered, refer to Appendix A. The below issues were carried forward for detailed analysis based on this internal review, since they would be potentially impacted by the project to a level that may help make a reasoned choice among alternatives or may be related to a potentially significant effect.

- Fuels/Fire Management-Potential for the proposed action to change the fire cycle by decreasing hazardous fuels designed to result in a return to the natural fire regime and condition class with shorter flame lengths for fires that do occur.
- Wildlife and Special Status Animal Species-Potential improvement of big game, migratory birds, sage grouse, and Mexican spotted owls through the proposed action vegetation treatment. Potential short term disturbance of individual wildlife from the sights and sounds of the equipment associated with the proposed action
- Plants: Invasive Plants/Noxious Weeds-Potential for the spread of existing weed infestations due to equipment being utilized in those areas.
- Plants: Vegetation, Excluding USFWS designated species-Potential damage or destruction of Hamilton's milkvetch and Goodrich's beard due to use of the equipment associated with the proposed action in or near their habitat

1.4.2. Public Scoping

The project was posted to the ePlanning register on February 25, 2015, no comments were received.

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Chapter 2. Proposed Action and Alternatives

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2.1. Description of the Proposed Action:

The proposed action is a hazardous fuels reduction project and a habitat improvement project for the greater sage grouse.

The treatment involves a bullhog mastication device mounted on a tracked machine or a rubber tire tractor. The bullhog methodology involves the chipping of pinyon pine and Utah juniper (PJ) trees with a reciprocating drum. The mastication treatment is over approximately 1,476 acres. Hand slashing using chainsaws may occur within the mastication treatment polygon in areas containing steep terrain or inaccessible terrain for the bullhog or areas that are sensitive to equipment.

The vegetation in the project area is comprised of primarily PJ and sagebrush. The PJ trees have increased in overall density and encroached into the sagebrush habitat type in the project area, increasing the overall fuel loads. The sagebrush habitat has been designated as a Fire Regime Group III (fire return interval 35-100 years). The increased amount of PJ trees have resulted in a change in the Fire Regime Condition Class from a Class I to a Class II Condition Class. (Vernal Fire Management Plan, 2009.) The departure from a Class I Condition Class to a Class II Condition Class indicates that at least one cycle of the natural fire regime fire interval has been missed due to historic fire suppression efforts, man-made structures or changing vegetation conditions. The change from a Class I to Class II has resulted in an increase of the hazardous fuel loads in the project area.

The mastication treatment would result in bark, sawdust, and wooden chips being left on the ground after treatment is completed. No new access roads would be needed to access the project area and access would be via existing roads and trails. No permanent man-made structures would be established or left remaining after treatment work is completed. A maintenance treatment of slashing may occur in the future as PJ regeneration develops on the site to reduce the amount of pinyon pine and juniper seedling establishment into the sagebrush ecosystem.

No treatment work would be allowed during times of saturated soil conditions, which exist when ruts greater than three inches in depth are created by the bullhog machine. The mastication only area still has an adequate understory vegetation to protect the soil from erosion, following removal of the PJ trees, thus reseeding this area after treatment would not be required. A seeding may occur to help establish a grass and forb component if the vegetative response is not adequate.

Treatment work is expected to occur **after July 31 and before December 1**. These dates would protect deer and elk on their summer and winter range, and are in compliance with the Resource Management Plan. Due to the potential for weed invasion within the project area, standard weed prevention measures would be followed. These include: conducting a pre-project weed inventory; washing equipment prior to entering the project area; monitoring of the project area to detect and/or treat weed infestations.

2.2. Description of Alternatives Analyzed in Detail:

Under a No Action Alternative, no hazardous fuel reduction actions would be taken. Current resource conditions and trends would continue. Private property would continue to be at risk from wildfires; hazardous fuels would continue to increase. Pinyon and juniper trees would continue to invade into critically important sage-grouse habitat changing the vegetation composition and structure.

2.3. Alternatives Considered but not Analyzed in Detail

Prescribed Fire: This alternative was dismissed from detailed analysis because it would not meet the project purpose and need. A prescribed fire option would not allow for controlled removal of the vegetation type in specific sites. One goal is to benefit the greater sage grouse habitat; an increased risk of affecting a large amount of greater sage grouse habitat is a deterrent for considering prescribed fire. A prescribed fire disturbance is more likely to cause an unwanted increase in the expansion of cheatgrass.

2.4. Conformance

The EA is in conformance with the goals and objectives of the Vernal Resource Management Plan Record of Decision (2008). The specific citations are listed below:

- The primary goal and objective of fire management is to help restore natural systems to their proper functioning condition by restoring fire to its legitimate role in the ecosystem, including managing wildland fire for other resource benefits. (page 77. USDOI. 2008)

- For Wildland Urban Interface (WUI) areas, the objective will be to reduce hazardous fuels adjacent to these at-risk areas through mechanical, prescribed fire, or chemical treatments, or a combination thereof. The BLM will develop WUI Projects in partnership with the State of Utah, the Ute Indian Tribe, and Daggett, Duchesne, Uintah, and Grand Counties.

Page 77 in section FIRE-4 reads

- Hazardous fuel reduction activities will be implemented primarily through the use of prescribed fire and managed wildland fire. In some cases, chemical and/or mechanical treatments will be used in conjunction with fire. Where social and/or resource constraints preclude the use of fire, mechanical and/or chemical treatments will be used.

Chapter 3. Affected Environment:

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3.1. Introduction

This chapter presents the potentially affected existing environment (i.e., the physical, biological, social, and economic values) of the project area as identified by the interdisciplinary team analysis and as presented in Chapter 1 of this assessment. This chapter provides the baseline for comparison of impacts/consequences described in Chapter 4

3.2. General Setting

The project area is located on the southern slopes of Little Mountain, which is approximately four miles west of Maeser, Utah. The overstory vegetation in the area consists primarily of pinyon pine and juniper trees, the brush component is Wyoming big sagebrush. Grasses present include generally crested wheatgrass with a small amount of cheatgrass *(Bromus tectorum)* in the area.

Soils consist primarily of a well-drained loam (Pinetown loam) with a minor component of Clapper very cobbler loam. The annual precipitation amount ranges from 8 to 12 inches. Elevation range is from 5,900 up to 7,500. Slopes range from flat to 30% with the majority of the project being less than 10%.

3.3. Resources Brought Forward for Analysis

During the analysis conducted by the interdisciplinary team, it was found that the following aspects of the environment could potentially be affected by the proposed action.

3.3.1. Fire and Fuels Management

3.3.1.1. Fire Management

This project is located in the Little Mountain Fire Management Unit.

- Manage the vegetation to attain the ecological stage that would benefit wildlife in crucial habitat and livestock grazing.
- Manage forests and woodlands for long-term healthy habitat for animal and plant species, forest and woodland health, and riparian restoration and enhancement.
- Manage forests and woodlands for long-term healthy habitat for animal and plant species, forest and woodland health, and riparian restoration and enhancement.

Fire Management Actions/Strategies within the FMP in the Non-fire Fuels Treatment section contains the following objectives:

- Achieve the desired mix of seral stages for each major vegetative type.
- Create fuel breaks within the mountain big sage type to prevent large unplanned fires in this type.
- Remove encroaching woody species from the major vegetative types.
- Reduce fuel loads.

- Chemical treatments would be utilized in conjunction with prescribed fire and mechanical treatments to achieve desired objectives, and to also control invasive species.

Soils in this unit consist primarily of shallow to moderately deep, well-drained stony loams. The fire return interval of Wyoming big sage is 30–65 years, the fire return interval of pinyon-juniper (PJ) woodland is 50 to 100 years. Woodland expansion into shrub steppe plant communities has resulted in a dramatic increase in length of fire return intervals in the big sagebrush cover type (Miller et al 1999). Fire behavior is much different between a sage brush ecosystem compared to a pinyon juniper ecosystem. One study found that flame lengths in a pinyon and juniper crown fire can range from 12 to 36 feet, compared to less than 12 feet in a shrubland fire (Dicus and others 2009).

3.3.1.2. Fuels Management

The current fuels on the project area consists of Utah juniper (*Juniperus osteosperma*) woodland in the overstory and Wyoming sagebrush (*Artemisia tridentata*) as the dominant shrub species. The grass vegetation components consists of crested wheatgrass (*Agropyron cristatum*) and cheatgrass (*Bromus tectorum*).

Fuel loadings for the project area were assessed through utilizing BLM Technical Note 430- "Guide for Quantifying Fuels in the Sagebrush Steppe and Juniper Woodlands of the Great Basin" (Stebleton and Bunting, 2009). Based on this guide along with the research completed by Miller et al. (2005, 2008) and on site tree density measurements to determine pinyon-juniper stems per acre, it was determined that the project area is in a phase 2 condition as described in the literature described above.

The Utah juniper represents approximately 7.3 tons/acre of live fuels.

The debris from a chaining (circa 1960) is an additional 4.8 tons/acre.

The shrub component is an additional 1.3 tons/acre.

The total fuel loading is approximately 13.4 tons/acre.

3.3.2. Wildlife

3.3.2.1. Big Game Species

Mule deer and Rocky Mountain elk are the primary big game species found within the project area. Use typically occurs during the winter, when elk and deer utilize the project area for foraging, thermal cover and escape cover. Both species have an extremely variable diet and therefore live in a variety of habitats. They consume a combination of grasses, forbs, and shrubs. Food consumption is also related to the season of use. During winter, elk move to lower elevations where they are found most often on south facing slopes, primarily in P-J woodlands. Deer typically move down to lower elevation foothill areas.

Crucial elk and deer winter habitat has been designated within the project area. These designations were made in the Vernal Field Office RMP (BLM, 2008).

Other wildlife species that are likely to occur in the project area include black bear, mountain lion, coyote, and bobcat, as well as a large variety of small mammals. Many of these species are habitat generalists, meaning they are not tightly restricted to specific habitat types. These species have not shown negative impacts by bullhog operations; therefore, they will not be discussed further in this document.

3.3.2.2. Migratory Birds

The Migratory Bird Treaty Act (MBTA) was implemented for the protection of migratory birds. Unless permitted by regulations, the MBTA makes it unlawful to pursue, hunt, kill, capture, possess, buy, sell, purchase, or barter any migratory bird, including the feathers or other parts, nests, eggs, or migratory bird products. In addition to the MBTA, Executive Order 13186 sets forth the responsibilities of Federal agencies to further implement the provisions of the MBTA by integrating bird conservation principles and practices into agency activities and by ensuring that Federal actions evaluate the effects of actions and agency plans on migratory birds.

The Utah Partners In Flight (UPIF) has prioritized migratory birds that are considered "most in need of conservation action, or at least need to be carefully monitored throughout their range within Utah." These are also the species "that will be most positively influenced by management as well as those species with the greatest immediate threats" according to UPIF (Parrish et al. 2002).

3.3.2.3. Raptors

Some of the more visible birds in and near the project area include golden eagles ferruginous hawks, and red-tailed hawks. The BLM raptor database was reviewed and there are no known nests within the project area. Habitats in and around the project area provide diverse breeding and foraging habitat for raptors. These habitats include rocky outcrops, pinyon-juniper woodlands, and sagebrush shrub lands.

3.3.2.4. Threatened, Endangered, Proposed, or Candidate Animal Species

3.3.2.4.1. Greater Sage-grouse (Federal Candidate, BLM Sensitive, Utah State Sensitive)

The greater sage-grouse is an important game bird found in Utah. These birds inhabit sagebrush plains, foothills, and mountain valleys. Sagebrush is the predominant plant of quality habitat. Factors involved in the decline in both the distribution and abundance of greater sage-grouse include permanent loss, degradation, and fragmentation of sagebrush-steppe habitat throughout the western states including Utah (Heath et al. 1996, Braun 1998). Documented severe population declines (approximately 80%) occurred from the mid-1960s to mid-1980s. Research and conservation efforts in the last 20 years have help stabilize and recover many populations. Populations appear to have taken a slight positive turn in recent years (UDWR 2009). The BLM identifies the area as occupied habitat and the Utah Division of Wildlife Resources (UDWR) has identified use during the winter and spring within the project area (Maxfield 2015). The project area is also a Sage Grouse Management Area (SGMA) within the state's Conservation Plan for Greater Sage-Grouse in Utah. Currently, the BLM identifies occupied habitat as Preferred Priority Habitat (PPH, BLM IM 2012-043).

3.3.3. Plants: Invasive Plants / Noxious Weeds

A review of the Field Office GIS layer files shows known occurrences of the following weed species near or within proposed treatment areas: Russian knapweed (*Acroptilon repens*), Canada thistle (*Cirsium arvense*), broadleaved pepperweed (*Lepidium latifolium*), and saltcedar (*Tamarix ramosissima*).

3.3.4. Plants: Vegetation, Excluding USFWS designated species

3.3.4.1. Hamilton's milkvetch (Astragalus hamiltonii) and Goodrich's beardtongue (Penstemon goodrichii)– BLM Sensitive

A review of field office GIS layers shows 9 known locations representing at least 38 individuals of Hamilton's milkvetch (*Astragalus hamiltonii*) and two locations of Goodrich's penstemon, (*Penstemon goodrichii*), both BLM-sensitive species, within proximity of the proposed treatment areas. Although no known locations are within proposed treatment areas, 68 acres of potential habitat overlaps with the proposed project area.

Hamilton's milkvetch is a Utah BLM sensitive plant endemic to the Uinta Basin in Uintah County Utah. This member of the bean family is a perennial herb, up to 23 inches tall, and produces white to cream colored flowers from late spring to early summer.

Goodrich's beardtongue is a Utah BLM sensitive plant species, endemic to the Uinta Basin. This member of the plantain family (formally a member of the figwort family) is a small perennial herb arising from a branching caudex growing to a height of 40 centimeters. The species produces blue to blue-lavender flowers with violet guidelines in the throat. Both Goodrich's beardtongue and Hamilton's milkvetch grow in desert shrub and pinyon-juniper communities primarily on the Duchesne River formation.

Chapter 4. Environmental Effects:

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4.1. Introduction

This Chapter analyzes the direct and indirect impacts that the proposed action and the no action alternative have on the resources identified in Chapter 1 and explained in Chapter 3. It also analyzes the cumulative impacts expected from other land use activities and recognizes actions that could take place in the reasonably foreseeable future.

4.2. Alternative A – Proposed Action

4.2.1. Fuels and Fire Management

4.2.1.1. Fuels Management

With the mulching of the encroaching PJ, the arrangement of over 13 tons of hazardous fuels would be decreased from standing 12-15 feet in height to less than 2 feet in height. The fuel height has a direct correlation to flame length in the event of a wildland fire. Overtime the fine fuels attached to pinyon and juniper trees (needles and twigs) would decompose and decrease fuel loading and flammability. The Fire Regime Condition Class for the project area would change from the current Class II Condition Class to a Class I condition Class. The change in fuel loadings would be expected to result in a decline in the degree of fire severity that occurs from any unplanned fire event, as the residual shrubs, forbs, and grasses typically produce shorter flame lengths and reduced rates of spread of the flaming fire front. With an expected decline in fire severity, the understory species are more likely to survive an unplanned fire event, thus hastening vegetative recovery following a fire event. An accelerated recovery of vegetation would reduce the potential for any post fire erosion events and decrease cheatgrass expansion.

4.2.1.2. Fire Management

The shortened flame lengths in these fuels would increase the ability of fire suppression resources in extinguishing or controlling wildland fires in the area. An additional benefit would consist of suppression resources using the treatment area as a fire break or an anchor point for strategic wildland fire tactics.

4.2.2. Wildlife

4.2.2.1. Big Game Species

One of the major problems facing big game populations in Utah is that many of the crucial ranges are in late successional plant community stages that are dominated by increasing densities of pinyon-juniper or other conifer trees (UDWR 2008). The tree-dominated habitats occupied by persistent pinyon-juniper adjacent to the project area offer a place to retreat from severe weather, but offer little in the way of forage. That is why it is important to maintain mosaic patterns of habitat that can provide forage, cover, and water. Treatment of the encroachment pinyon-juniper sites can successfully return this area into a grassland/shrubland community, thus enhancing and promoting the return of sagebrush and other perennial understory species which will benefit big game habitat for the long term. Approximately 1,476 acres of crucial elk and deer winter habitat was identified within the proposed project area. An increase in human presence during the

winter months could cause short term impacts (increased stress, increased energy expenditure) to big game species. No treatment activities will be allowed from December 1 – April 31 during the wintering months

4.2.2.2. Migratory Birds

Migratory bird species may be present during the breeding/nesting season from March 1- July 31. If project operations were to take place during the breeding/nesting season, individual bird species could be impacted. Impacts may include; destruction of nests, eggs, and nesting habitat, fragmentation of habitat, reduction of habitat patch size, human presence during the breeding/nesting season can cause nest abandonment. Project activities are planned to occur after July 31. The proposed project targets younger pinyon-juniper trees that are not older, mature stands of pinyon-junipers which are favored by most pinyon-juniper bird species. Although there may be some short-term direct impacts to pinyon-juniper bird species, the long term benefit of the project would benefit sagebrush/grassland bird species, several of which are currently identified as BLM State Sensitive Species.

4.2.2.3. Raptors

Impacts would be the same as the migratory bird section. Treatments would be planned to occur after July 31. If project activities were to occur during the nesting season (March 1 – July 31), raptor surveys would be required, and no tree removal would be allowed within .5 mile of an occupied nest site.

4.2.2.4. Threatened, Endangered, Proposed, or Candidate Animal Species

4.2.2.4.1. Greater Sage-grouse (Federal Candidate, BLM Sensitive, Utah State Sensitive)

The BLM has designated PPH and UDWR has identified approximately 1,476 acres of occupied brood rearing, and winter habitat in the project area. There is one known lek within 4 miles of the project area. Sage-grouse habitat use and requirements change through the annual flow of the seasons and life functions. Early brood-rearing (May-July) generally occurs relatively close to nest sites. As herbaceous plants mature and dry, hens move their broods to late brood-rearing (July-September) habitats which consist of more succulent vegetation. Winter habitat almost exclusively consists of sagebrush, which is the main diet of sage-grouse in the winter.

Direct impacts (mortality of individual grouse from bullhog vehicles) to sage grouse are not anticipated as these activities would not be conducted within sage grouse nesting, or early brood-rearing seasons, or wintering areas from March 1- July 15 brood rearing) and Nov. 15 – March 15 (winter). Indirect impacts could include temporary displacement (flushing) from foraging/cover areas. Overall, treatment activities would result in a positive impact for sage-grouse. Encroaching pinyon-juniper would be removed leaving the younger, smaller plants. The understory would be replenished with a mixture of forbs, grasses, and shrubs. In recent years the BLM has conducted similar treatments to wyoming sagebrush and treatments have been considered a positive improvement to sage-grouse habitat, as they have promoted younger sagebrush and have helped replenished understories. The proposed action conforms with

the policies and procedures outlined in the BLM's Greater Sage Grouse Interim Management guidance (BLM 2011) and is supported by UDWR Sensitive Species Biologist (Maxfield 2015).

4.2.3. Plants: Invasive Plants / Noxious Weeds

Russian knapweed, Canada thistle, broadleaved pepperweed, and saltcedar are known to occur near treatment areas that are planned for mastication. Across all proposed treatment areas, the management goal will be to minimize or eliminate new infestations of noxious weed species.

Mitigation:

- Known populations of Russian knapweed, Canada thistle, broadleaved pepperweed, and saltcedar, and any new noxious weed populations encountered in any proposed fuels treatment areas prior to or during treatment, will be spot treated with an upland herbicide mix (Curtail + Telar XP) prior to applying the proposed fuels-removal treatment.

- Any equipment used in treatment areas that contain noxious weed populations will be power-washed prior to being driven into another treatment area.

- The BLM will continue to practice early detection and rapid eradication to ensure new noxious weed populations do not establish as a result of project activities. Annual monitoring will continue for three years following project completion.

4.2.4. Plants: Vegetation, Excluding USFWS designated species

About 68 acres of proposed project area overlaps with potential habitat for Hamilton's milkvetch and Goodrich's beardtongue. Mastication of trees are likely to temporarily disturb the ground surface. Therefore, within the 68 acres of potential habitat, hand-slashing (lop and scatter) treatments will be used instead of mastication. However, slashing treatments are not expected to negatively impact sensitive plant populations as they are focused specifically on the removal of piñon pine and Utah juniper and not expected to cause ground disturbance that would be detrimental to adjacent forbs. Potentially, scatter piles could be placed on individuals of Hamilton's milkvetch and Goodrich's beardtongue.

Mitigation:

- Trees located within the 68 acres of identified suitable habitat for Hamilton's milkvetch and Goodrich's beardtongue will be hand-slashed instead of machine-masticated.

- All project-related field crews will be instructed to avoid scattering debris piles on top of Hamilton's milkvetch and Goodrich's beardtongue.

4.3. Alternative B — No Action

4.3.1. Fuels and Fire Management

4.3.1.1. Fuels Management

Under the No Action Alternative, there would be no removal of the PJ trees across the project area. Sagebrush obligate species, including sage-grouse are sensitive to western juniper encroachment into sagebrush communities (Miller et al 2005). Over time the PJ trees would eventually out-compete the shrubs, grasses, and forbs for water, nutrients, and light, resulting in the loss of the sagebrush habitat type in the project area. Over time, the fuel loading of juniper would continue to increase, eventually shifting the project area from the existing condition class II to a condition class III situation. In the absence of disturbance or management, the majority of these landscapes will become closed woodlands resulting in the loss of understory plant species and greater costs for restoration (Miller et al 2008).

Under the No Action Alternative there would be a continued progression of mature sagebrush species with declining vigor and growth. The current sagebrush would become decadent and there would be an increase in the dead component in the crowns and individual species.

4.3.1.2. Fire Management

Eventually, an unplanned wildland fire is expected to occur, and since the fuel loadings would have increased, the severity of the fire event is also expected to be greater. Since the increased amount of PJ tree densities would have correspondingly decreased the amount of understory plants, the loss of trees from an unplanned fire event would most likely result in increased soil erosion due to the lack of ground cover remaining following the fire event. In the event of a wildland fire cheatgrass would be the first and most dominant species to invade the area. “A fire return interval of 3-6 years fueled by cheatgrass tends to wear down perennials. Regardless of some perennial plants being able to compete with cheatgrass at one point in time, the ability of cheatgrass to drive ecosystem dynamics over time is a function of high fire frequency as well as its aggressive growth features.” (Reid and others 2006)

The current vegetation mix of pinyon pine and Utah juniper with heights of 12-15 feet in a sagebrush community would result in 30 - 40 foot flame lengths if ignited. Under the no action alternative, fuels would continue to increase in height, tons/acre, and dead component. These variables would decrease the ability to suppress wildland fires. Standard procedures for wildland firefighters include not engaging direct tactics by hand on flames over four feet tall, equipment limits (engines or dozers) are eight foot flame lengths. These conditions increase fire behavior characteristics and minimize the ability of firefighters suppressing wildfires.

4.3.2. Wildlife

Under the No Action Alternative there would be no PJ removed from the project area.

4.3.2.1. Big Game Species

The impacts would be the same as the Fire Management Section 4.3.1.2. Eventually over time, the quality of big game winter range would decrease.

4.3.2.2. Migratory Birds

The impacts would be the same as the Fire Management Section 4.3.1.2. Eventually over time, the quality of the sage-steppe ecosystem would decrease..

4.3.2.3. Raptors

There would be no impacts to tree nesting raptors.

4.3.2.4. Threatened, Endangered, Proposed, or Candidate Animal Species

The impacts would be the same as the Fire Management Section 4.3.1.2. Eventually over time, the quality of the sage-steppe habitat would decrease.

4.3.3. Plants: Invasive Plants / Noxious Weeds

Known populations of Russian knapweed, Canada thistle, broadleaved pepperweed, and saltcedar within the proposed treatment area would continue to receive regular (at a maximum, annually) herbicide treatment until eradicated. Unknown noxious weed populations within the project area will either be located and treated in future years or remain unlocated and untreated, and will continue expanding in future years.

4.3.4. Plants: Vegetation, Excluding USFWS designated species

Populations of Hamilton's milkvetch and Goodrich's penstemon that potentially occur within the proposed treatment area would not be impacted by project activity, but both species would potentially be out-competed by pinon-juniper woodlands over time.

4.4. Cumulative Impacts Analysis

4.4.1. Fuels and Fire Management

The Cumulative Impact Analysis Area for Fire and Fuels is the North Uinta Basin Fire Management Unit. The Bureau of Land Management has been directed by Congress (2001 Updated Federal Wildland Fire Management Policy) to implement actions designed to reduce decades of accumulation of hazardous fuels on public lands. Future treatments in this Fire Management Unit will most likely use treatments including: mechanical, prescribed fire, and wildland fire use to manage the vegetative resource. With the increased hazardous fuel reductions, this Fire Management Unit landscape will eventually be composed of varying age classes of vegetation. The No Action Alternative would not result in an accumulation of impacts.

4.4.2. Wildlife

4.4.2.1. Big Game Species

The Cumulative Impact area for Big Game Species is the South Slope Unit, which consist of approximately 950,681 acres. Due to a precipitous decline in deer numbers in the early 1990's deer hunting has been limited and/or closed. Current population estimates for the deer in the South Slope Vernal/Diamond Unit is 11,100, below the population objective of 13,000. Elk numbers have risen substantially in the same time span. Current population estimates for the Vernal South Slope Vernal/Diamond Unit is 2,500, meeting the objective of 2,500. Presently, the units are open to limited entry permits for both deer and elk. Since present deer and elk numbers are below and meeting the established herd management objective numbers, numbers will need to be managed until herd objective numbers are realized for deer. As herd numbers for deer increase, then the continued need for vigorous and productive vegetative types would increase. The Vernal Field Office has been involved in restoring declining habitat conditions in the sage steppe habitat type. These habitat improvement projects would typically be comprised of removing P-J encroachment from sage brush, restoration of cheatgrass infested sage brush types, and sage brush manipulation projects that have a seeding component that improves understory conditions. It is expected that habitat treatments within sage steppe habitat types would continue to occur in the future. The Proposed Action would add 1,476 acres of treatments. The No Action alternative would not result in an accumulation of impacts.

4.4.2.2. Migratory Birds and Raptors

The Cumulative Impact area for wildlife is the Uintah Sage-grouse Management Area (SGMA), which consist of approximately 82,200 acres. The Vernal Field Office has been involved in restoring declining habitat conditions in the sage steppe habitat type. These habitat improvement projects would typically be comprised of removing P-J encroachment from sage brush, restoration of cheatgrass infested sage brush types, and sage brush manipulation projects that have a seeding component that improves understory conditions. It is expected that habitat treatments within sage steppe habitat types would continue to occur in the future. The Proposed Action would add 1,476 acres of treatment. The No Action Alternative would not result in an accumulation of impacts.

4.4.2.3. Threatened, Endangered, Proposed, or Candidate Animal Species

Greater Sage-grouse (Federal Candidate, BLM Sensitive, Utah State Sensitive)

The Cumulative Impact area for Greater Sage Grouse is the Uintah SGMA, which consist of approximately 82,200 acres. The project area is also within occupied (PPH) habitat. The Vernal Field Office has been involved in restoring declining habitat conditions in the sage steppe habitat type across the Field Office. It is expected that habitat treatments within sage steppe habitat types would continue to occur in order to prevent the further decline of sage grouse population numbers and the potential for ESA federal listing from the U.S. Fish and Wildlife Service. These habitat improvement projects would typically be comprised of removing P-J encroachment from sage brush, restoration of cheatgrass infested sage brush types, and sage brush manipulation projects that have a seeding component that improves understory conditions. The Proposed Action would add 1,476 acres of treatments. The No Action Alternative would not result in an accumulation of impacts.

4.4.3. Plants: Invasive Plants / Noxious Weeds

The cumulative impact area for plants is the Upper Twelvemile Wash, Halfway Hollow, and Lower Deep Creek watersheds, consisting of 54,906 acres. Past disturbances, both human-caused and natural, have provided soil and vegetation disturbance conducive to invasion of noxious weeds. Past development, management activities, and recreational activities often employed inadequate weed prevention measures. As a result, the infestations of Russian knapweed, Canada thistle, broadleaved pepperweed, and saltcedar occur within and near the project area. Current and reasonably foreseeable actions in the cumulative impact area that include soil or vegetation disturbance require implementation of weed prevention and mitigation practices such as those described in Chapter 4.2.5.1; therefore, the risk of spread of existing infestations from the above-listed actions is considered to be low. Under all alternatives, known weed infestations may provide seed source for expansion elsewhere in the project area. The risk of expansion of these infestations would be low to high, depending on the location and extent of future disturbances and their proximity to existing untreated infestations. The Proposed Action would contribute 1,476 acres of habitat treatment. The No Action Alternative would not result in an accumulation of impacts.

4.4.4. Plants: Vegetation, Excluding USFWS designated species

The cumulative impact area, and past, present, and future activities are the same for this resource as for invasive plants/noxious weeds. Cumulative impacts include vegetation manipulation, or disturbance through treatments and/or surface disturbance. The herbicide application, infestation by noxious weeds, and vegetation treatments in potential and occupied habitat pose the greatest cumulative threat to potential Hamilton's milkvetch and Goodrich's beardtongue populations in the cumulative impact area. The mitigation measures in Chapter 4.2.5.2 serve to minimize the cumulative effects of the proposed action, when considered with all other past, current and future impacts, on potential BLM-sensitive populations in the cumulative impact area. The Proposed Action would contribute 1,476 acres of habitat treatment. The No Action Alternative would not result in an accumulation of impacts.

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Chapter 5. Tribes, Individuals, Organizations, or Agencies Consulted:

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[Describe consultation efforts here.]

5.1. Persons, Groups, and Agencies Consulted

Table 5.1. List of Persons, Agencies and Organizations Consulted

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
Native American Tribes	Purpose: to ensure tribal consultation is completed according to Section 110 of the 16 USC 470.	Tribal consultation was conducted on January 20, 2015. One "no effect" response from the Hopi Tribe was received on February 17, 2015. No other comments were received. The proposed project will not hinder access or use of Native American religious sites.
United States Geologic Survey	Purpose: to collaborate and provide funding opportunities for other agencies and private landowners.	Recommended project and coordinated with adjacent land agencies.
Utah Division of Wildlife Resources	Purpose: to collaborate and discuss habitat improvements for sage-grouse.	Approves the project for the benefit of the Greater sage grouse.
SHPO	Purpose: to inform SHPO of treatment activities and seek concurrence of determinations.	Received SHPO concurrence letter regarding treatment activities determination.
Private Landowner	Purpose: to inform adjacent landowner of treatment activities.	Sent notification letter, did not receive any comments back.
Uintah County	Purpose: to notify the county of treatments and activities.	Sent notification letter, did not receive any comments back.

5.2. List of Preparers

The list of Preparers can be found in the Interdisciplinary Checklist, Appendix A

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Chapter 6. References

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Appendix A. Interdisciplinary Team Checklist

Project Title: Cottonwood Springs HFR

NEPA Log Number: DOI-BLM-UT-G000–0001–EA

File/Serial Number:

Project Leader: Blaine Tarbell

DETERMINATION OF STAFF: (Choose one of the following abbreviated options for the left column)

NP = not present in the area impacted by the proposed or alternative actions

NI = present, but not affected to a degree that detailed analysis is required

PI = present with potential for relevant impact that need to be analyzed in detail in the EA

NC = (DNAs only) actions and impacts not changed from those disclosed in the existing NEPA documents cited in Section D of the DNA form. The Rationale column may include NI and NP discussions.

Determination	Resource/Issue	Rationale for Determination	Signature	Date
RESOURCES AND ISSUES CONSIDERED (INCLUDES SUPPLEMENTAL AUTHORITIES APPENDIX 1 H-1790-1)				
NI	Air Quality & Greenhouse Gas Emissions	Air quality impacts from the projected levels of emission are expected to be negligible. Minimum quantities of dust emissions are anticipated because the volume of traffic from this proposal would be approximately one or three vehicles per day during the project, and the project is estimated to take 30 days to complete. Greenhouse Gas emissions standards have not been set by EPA or other regulatory agencies for greenhouse gases. In addition, the assessment of greenhouse gas emissions and climate change is still in its earliest stages of formulation. Global scientific models are inconsistent, and regional or local scientific models are lacking so that it is not technically feasible to determine the net impacts to climate due to greenhouse gas emissions. It is anticipated that greenhouse gas emissions associated with this action and its alternative(s) would be negligible due to their localized and short term nature.	Stephanie Howard	03/03/ 2015
NP	BLM Natural Areas	None present according to GIS/RMP review.	Bill Civish	2/19/2015

Determination	Resource/Issue	Rationale for Determination	Signature	Date
NI	Cultural: Archaeological Resources	The current project was determined to be an *undertaking* per 36 CFR 800.16(y). The area of potential effect (APE) 36 CFR 800.16(d) is considered to be the area within the polygons in the attached maps. A 100% cultural inventory was conducted on the proposed project area (U-15-SQ-0002bs). Three "eligible" sites were identified within the project area. All "eligible" sites will be avoided by 50 feet during the bullhog treatment. Hand carried chainsaw will be used to clear the vegetation on all of the sites so their locations will not be evident. Pursuant to 36 CFR 800.4(d)(1) a *no historic properties affected* letter was sent to the State Historic Preservation Officer (SHPO) on June 8, 2015. We received the SHPO concurrence to our determination on June 26, 2015.	Kathie Davies	6/29/2015
NI	Cultural: Native American Religious Concerns	Tribal consultation: Tribal consultation was conducted on 1/20/15. One "no effect" response from the Hopi Tribe was received on February 17, 2015. No other comments were received. The proposed project will not hinder access or use of Native American religious sites.	Kathie Davies	6/29/2015
NP	Designated Areas: Areas of Critical Environmental Concern	None present according to GIS/RMP review.	Bill Civish	2/19/2015
NP	Designated Areas: Wild and Scenic Rivers	None present according to GIS/RMP review.	Bill Civish	2/19/2015
NP	Designated Areas: Wilderness Study Areas	None present according to GIS/RMP review.	Bill Civish	2/19/2015
NP	Environmental Justice	No minority or economically disadvantaged communities or populations are present which could be disproportionately adversely affected by the proposed action or alternatives.	Blaine Tarbell	02/20/2015
NP	Farmlands (prime/unique)	No prime or unique farmlands as defined by the NRCS are present in the project area. Also, no irrigated lands are located in the proposed action area; therefore this resource will not be carried forward for analysis.	Blaine Tarbell	02/20/2015
PI	Fuels/Fire Management	Project is designed to reduce hazardous fuel loads. The project will treat approximately 1,476 acres.	Blaine Tarbell	02/20/2015

Determination	Resource/Issue	Rationale for Determination	Signature	Date
NI	Geology/Minerals/ Energy Production	This project does not involve significant surface disturbance and, therefore, will not impact geologic conditions, mineral resources or energy production.	Justin Snyder	2/27/2015
PI	Invasive Plants/ Noxious Weeds, Soils & Vegetation	A review of the Field Office GIS layer shows known occurrences of the following weed species within or near proposed treatment areas: russian knapweed (*Acroptilon repens*), Canada thistle (*Cirsium arvense*), broadleaved pepperweed (*Lepidium latifolium*), and saltcedar (*Tamarix ramosissima*).	Jessica Brunson	3/20/2015
NI	Lands/Access	The Project Area is located within the Vernal Field Office Resource Management Plan planning area which allows for prescribed burns. No existing land uses would be changed or modified by the implementation of the Proposed Action. **Public Water Reserve:** One public water reserve is located directly north of the proposed 200 foot road buffer in Sec. 5, NENE, T4S., R20E., The buffer ends at the southern border of the PWR. The project border will be flagged and there is no work proposed within the PWR. **Uintah County Class D Roads** There are several Uintah County Class D roads, that traverse thru the proposed project area. Notification letter was sent to the Uintah County Commission on April 30, 2015. **Private/State/Tribal Lands** There are two (2) Private Land owners identified adjacent to the project area. Notification letters were sent to the landowners. A Notification letter was sent to SITLA on April 30, 2015. Tribal notifications are covered under the "Tribal Consultation" section.	Margo Roberts	3/2/2015
NP	Lands with Wilderness Characteristics (LWC)	None present according to GIS/RMP review.	Bill Civish	2/19/2015
NI	Livestock Grazing & Rangeland Health Standards	The proposed project will not require resting of any allotments. The project will enhance livestock grazing in the future. The proposed project area is within the Twelve Mile cattle allotment.	Craig Newman	2/11/2015
NI	Paleontology	This project does not involve significant surface disturbance and, therefore, will not impact paleontologic resources.	Justin Snyder	2/27/2015

Determination	Resource/Issue	Rationale for Determination	Signature	Date
PI	Plants: BLM Sensitive	A review of the Field Office GIS layers shows known occurrences of the following BLM—sensitive species within or near proposed treatment areas: Goodrich's penstemon(*Penstemon goodrichii*) and Hamilton's milkvetch (*Astragalus hamiltonii*).	Jessica Brunson	6/12/2015
NP	Plants: Threatened, Endangered, Proposed, or Candidate	A review of field office GIS layers revealed no known occurrences of Threatened, Endangered, Candidate or Proposed Species populations or potential/suitable habitat in or near the project area.	Jessica Brunson	3/20/2015
NP	Plants: Wetland/Riparian	No wetland or riparian areas are located in the project area.	Jessica Brunson	3/20/15
NI	Recreation	This project is within an area known to have recreational usage. The project will not stop that recreational use.	Bill Civish	2/19/2015
NI	Socio-Economics	Due to the small scale project size, socioeconomics are not expected to be measurably impacted by this proposed project.	Stephanie Howard	3/3/2015
NI	Visual Resources	This project is being managed at the VRM level III. Class III objective is to partially retain the existing character of the landscape. The level of change to the landscape should be moderate. Management activities may attract the attention of the casual observer, but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.	Bill Civish	2/19/2015
NP	Wastes (hazardous/solid)	*Hazardous Waste:* No extremely hazardous substances, as defined in 40 CFR 355, will be used, produced, stored, transported, or disposed of in association with the project. *Solid Wastes:* Burning of waste or oil would not be done. Human waste would be contained and be disposed of at an approved sewage treatment facility.	Blaine Tarbell	2/20/2015

Determination	Resource/Issue	Rationale for Determination	Signature	Date
NI	Water: Floodplains	The proposed bullhog project takes place in an area inundated with dry ephemeral type washes. The Twelve-mile wash 100 year floodplain is at the southeastern section of the proposed project. This project will not affect this 100 year floodplain to an extent that would require detailed analysis since the project takes place outside the floodplain area. Since the project will be making mulch type material this will also keep down any indirect affects from erosion affecting the floodplain environment.	James Hereford II	3/17/2015
NI	Water: Groundwater Quality	Having considered the following, the proposed action would have no significant impact on groundwater quality. ● There are two State of Utah underground water rights in the immediate area (45–1707 and 43–5001) with useable water as shallow as 33 ft depth. ● There are no designated EPA Sole Source Aquifers or State of Utah Drinking Water Source Protection Zones in the project area. ● The Proposed action does not involve significant surface disturbance, interaction with the subsurface or potential to dischange/spill significant volumes of fluids	Justin Snyder	5/4/2015
NI	Water: Hydrologic Conditions (storm-water)	The proposed action takes place in an area that is mostly dry ephemeral type drainages within the Lower-Green Diamond hydrologic unit boundary. This means water within this system ends up in the Green River. The current project is designed to increase ground cover, which would improve hydrologic conditions. The removal of pinyon and juniper trees to reduce fuels would increase ground vegetation; this would result in a positive affect by increasing vegetative cover and overall reducing erosion rates. The project would not need consideration for Section 402 of the Clean Water Act for stormwaters since no significant changes to the natural hydrology are proposed.	James Hereford II	3/17/2015

Determination	Resource/Issue	Rationale for Determination	Signature	Date
NI	Water: Surface Water Quality	The proposed project takes place in an area that has no perennial surface waters. There are some springs in the area that will not be affected by bull-hogging of the vegetation. This project will provide a positive effect to erosion rates by decreasing them, since increased surface roughness and overall vegetation will materials from reaching any perennial surface water expressions..	James Hereford II	3/17/2015
NP	Water: Waters of the U.S.	Waters of the U.S. will not be affected to by the current proposed project as per GIS review and on the ground observations. This area is mainly ephemeral washes that drain during runoff events.	James Hereford II	3/17/2015
NP	Wild Horses	VFO GIS layers indicate that there are no Wild horse and Burro Areas present within the project area.	Blaine Tarbell	4/6/2015
PI	Wildlife: Migratory Birds (including raptors)	Project activities will take place within the sage-steppe habitat type. Migratory species associated with the habitat type may be impacted.	Dixie Sadlier	2/27/2015
PI	Wildlife: Non-USFWS Designated	Crucial big game winter range has been identified within the project area. The proposed project will improve winter habitat. There will be a timing stipulations associated with project activities to protect big game on the winter range.	Dixie Sadlier	2/27/2015
PI	Wildlife: Threatened, Endangered, Proposed or Candidate	Is the proposed project in sage grouse PPH or PGH? Yes ☒ No If the answer is yes, the project must conform with WO IM 2012-043. The project is in conformance with WO IM 2012–043.	Dixie Sadlier	2/27/2015
NI	Woodlands/Forestry	VFO GIS layers indicate that there are no commercial woodlands present within the project area	David Palmer	4/6/2015

FINAL REVIEW:			
Reviewer Title	**Signature**	**Date**	**Comments**
Environmental Coordinator	Kelly Buckner	7/30/2015	
Authorized Officer	Troy Suwyn	7/31/2015	